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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,057	08/01/2001	Valtteri Niemi	324-010477-US (PAR)	4430

2512 7590 05/04/2005

PERMAN & GREEN
425 POST ROAD
FAIRFIELD, CT 06824

EXAMINER

DAVIS, ZACHARY A

ART UNIT PAPER NUMBER

2137

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/920,057	Applicant(s) NIEMI ET AL.	
	Examiner Zachary A. Davis	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>see Office action</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of a certified copy of a Finnish (FI 20001734) application. If this copy is being filed to obtain the benefits of the foreign filing date under 35 U.S.C. 119(a)-(d), applicant should also file a claim for such priority as required by 35 U.S.C. 119(b). If the application being examined is an original application filed under 35 U.S.C. 111(a) (other than a design application) on or after November 29, 2000, the claim for priority must be presented during the pendency of the application, and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior foreign application. See 37 CFR 1.55(a)(1)(i). If the application being examined has entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the claim for priority must be made during the pendency of the application and within the time limit set forth in the PCT and Regulations of the PCT. See 37 CFR 1.55(a)(1)(ii). Any claim for priority under 35 U.S.C. 119(a)-(d) or (f) or 365(a) or (b) not presented within the time period set forth in 37 CFR 1.55(a)(1) is considered to have been waived. If a claim for foreign priority is presented after the time period set forth in 37 CFR 1.55(a)(1), the claim may be accepted if the claim properly identifies the prior foreign application and is accompanied by a grantable petition to accept an unintentionally delayed claim for priority. See 37 CFR 1.55(c).

Information Disclosure Statement

2. The information disclosure statement filed 17 January 2002 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

3. The information disclosure statements filed 20 September 2001 and 12 February 2002 have been considered.

Oath/Declaration

4. Receipt is acknowledged of papers filed under 35 U.S.C. 119 (a)-(d) based on an application filed in Finland on 01 August 2000. Applicant has not complied with the requirements of 37 CFR 1.63(c), since the oath, declaration or application data sheet does not acknowledge the filing of any foreign application. A new oath, declaration or application data sheet is required in the body of which the present application should be identified by application number and filing date.

Drawings

5. Figure 1A should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The abstract of the disclosure is objected to because it appears to contain minor typographical errors. Specifically, it appears that the word "in" in line 5 should instead read "is". Correction is required. See MPEP § 608.01(b).

7. The disclosure is objected to because of the following informalities:

The disclosure appears to contain minor typographical and other errors. For example, throughout the specification, the term "unencrypted" is used (see, for example, page 1, paragraph 0004, line 26); it appears that this is intended to read either "unencrypted", "decrypted", or "plaintext". On page 5, paragraph 0017, line 4, it appears that the reference to Figure 1B should instead refer to Figure 1A. On page 12,

paragraph 50, line 30, it appears that the reference to "encryption mask 416" should instead read "encryption mask 412". In paragraphs 0059, 0060, 0061, and 0067, it appears that the references to "counter parameter 410" should instead read "counter parameter 402".

Appropriate correction is required. Applicant's cooperation is requested in correcting any other errors of which applicant may become aware in the specification.

8. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (see page 3, paragraph 0013, line 33). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 17, and 33 contain the limitations "GPRS/EDGE" and "universal mobile telecommunications system" (or UMTS), naming protocols in general. Where a protocol name is used in a claim as a limitation to identify a particular product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph, similar to the use of

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a trademark or trade name in a claim (See MPEP § 2173.05(u)). The claim scope is uncertain because the protocols are subject to evolving standards and go through several version revisions, and therefore the protocol names cannot be used to properly identify the specific methods, standards, or products that are associated with the protocol names.

Further in reference to Claims 1, 17, and 33, the claims recite the limitations “the radio access network UTRAN”, “the input parameters”, and “the operating parameters”. Further in reference to Claim 1, the claim recites the limitations “the transmitting end” and “the receiving end”. There is insufficient antecedent basis for these limitations in the claims.

It is noted that Claims 3, 19, and 35 each recite the limitation “its implementation”. Although it is clear that “its” refers to the encryption algorithm, Applicant is reminded to use care in the use of pronouns in the claims, to avoid any issues of indefiniteness.

Claims 5, 21, and 37 recite the limitation “the second layer signaling plane”. There is insufficient antecedent basis for this limitation in the claims.

Claims 7, 11, 23, 27, 39, and 43 recite the limitation “the MAC layer”. There is insufficient antecedent basis for this limitation in the claims.

Claims 8, 24, and 40 recite the limitation “the T1 counter part”. There is insufficient antecedent basis for this limitation in the claims.

Claims 9, 25, and 41 recite the limitations "the last used extended TDMA frame number" and "the next connection". There is insufficient antecedent basis for these limitations in the claims.

Claims 12, 28, and 44 recite the limitation "the RLC layer". There is insufficient antecedent basis for this limitation in the claims.

Claims 13, 29, and 45 recite the limitations "the last used hyper frame number" and "the next connection". Claim 13 further recites the limitation "said most significant bits". There is insufficient antecedent basis for these limitations in the claims.

Claims 15, 31, and 47 recite the limitations "the last used extended TDMA frame number or hyper frame number" and "the connection". Claims 15 and 31 further recite the limitations "the new radio access network" and "the old radio access network". There is insufficient antecedent basis for these limitations in the claims.

Any claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Fauconnier et al, US Patent 6768903.

In reference to Claim 1, Fauconnier discloses a method for transmitting data between a GPRS/EDGE network and a user mobile equipment, that includes encrypting data to be transmitted, transmitting the encrypted data, and deciphering the transmitted data (see column 3, line 63-column 4, line 2), and in which the encryption algorithm of a UMTS network is used with parameters adapted to parameters of the GPRS/EDGE network (see column 4, lines 61-67, where it is possible to use the same ciphering procedures in a UTRAN and a GERAN).

In reference to Claim 2, Fauconnier further discloses that a format of the parameters includes a number and length of each parameter (column 4, lines 5-16).

In reference to Claim 3, Fauconnier further discloses that the implementation of the encryption algorithm is the same in both the GPRS/EDGE network and the UMTS network (column 4, lines 61-67).

In reference to Claims 4 and 5, Fauconnier further discloses a counter parameter (column 4, lines 8-9; and, for example, column 10, lines 23-35, noting the ciphering sequence number CSN).

In reference to Claims 7, 8, 11, and 12, Fauconnier further discloses that the encryption algorithm can be executed in either the MAC layer or the RLC layer (column 5, lines 37-41), and that the counter parameter includes a frame number (column 5, lines 49-54).

In reference to Claims 9, 10, 13, and 14, Fauconnier further discloses that the most significant bits of a previously used frame number are stored and incremented before a new connection is made (column 10, lines 8-14 and 52-60).

In reference to Claim 6, Fauconnier further discloses the use of a bearer parameter (column 4, lines 10-11; column 9, lines 19-22).

In reference to Claims 15 and 16, Fauconnier further discloses that when a handover is made between networks, the most significant bits of a previously used frame number are stored and used in both networks, after having been incremented (column 10, lines 8-14 and 52-60).

Claims 17-32 are directed to an apparatus, specifically user equipment, that corresponds substantially to the method of Claims 1-16, and are rejected by a similar rationale.

Claims 33-48 are directed to an apparatus, specifically a radio access network, that corresponds substantially to the method of Claims 1-16, and are rejected by a similar rationale.

13. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Boudreaux, US Patent 6466556, discloses a method for performing a handover of user equipment between a UTRAN and a GERAN.
- b. Krishnarajah et al, US Patent 6845095, discloses handover between GSM/EDGE networks and UMTS networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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